for further human studies of limb ischaemia to induce a systemic preconditioned state.

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IMAGES IN CARDIOLOGY

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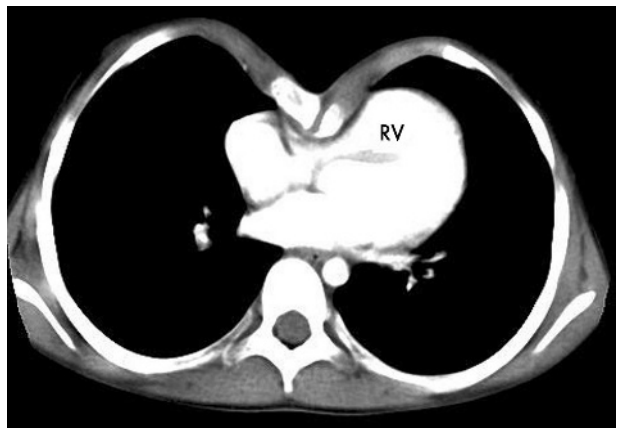
Malignant pectus excavatum

A 7-year-old girl with anterior Raphe syndrome was seen for recurrent syncope (six episodes over six months). She had undergone sternal repair of a midline defect at 3 years of age. The majority of episodes occurred in the morning and were usually associated with showering. Of concern was that an episode had occurred while swimming, requiring her to be rescued from the pool. Excepting obvious pectus excavatum, her clinical examination was normal. Her ECG, 24 ambulatory ECG and exercise test were normal and there was no evidence of long QT syndrome. Her transthoracic echocardiogram showed a structurally and functionally normal heart but the sternum appeared to compress the right ventricle. There was no flow acceleration across the inflow of the right ventricle. Syncope continued despite fluid and salt loading. A chest computed tomographic (CT) scan showed significant right ventricular compression by the sternal deformity (see panel). In the absence of any other cause for her symptoms we undertook sternochondroplasty with a resulting notable improvement in her pectus excavatum. She remains well and has had no further episodes of syncope at two years of follow up from her surgery.

Pectus excavatum is usually a cosmetic deformity but symptomatic cases of compression of the thoracic vessels and heart are described. To our knowledge this is a unique case presenting with syncope, which was presumably due to the flow limitation caused by the fixed right ventricular compression.



Chest computed tomographic scan with contrast showing right ventricular (RV) compression by the pectus excavatum.

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